Dr. Acland -
with Kind regards.

ON EFFUSIONS OF BLOOD

1v. 50

IN THE

NEIGHBOURHOOD OF THE UTERUS;

OR, THE SO-CALLED

PERIUTERINE HÆMATOCELE.

A THESIS FOR THE M.D. DEGREE

BY

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ERRATUM.

In pp. 4, 13, 15, *for* pubis *read* pubes.

On Effusions of Blood in the Neighbourhood of the Uterus.

HISTORY.

THAT blood can be poured forth from some one of the appendages of the uterus into the cavity of the abdomen, as a consequence of suppression of the menstrual flux, and there give rise to the formation of a tumour manifest to the sight and the touch, seems to have been already known to ancient writers; and offers to us of the present day another remarkable instance of how faithful descriptions and observations made in former times have been allowed to lie dormant for centuries, and in later years have been brought to life and unwittingly confirmed by the researches of modern investigators. Two quotations from Hippocrates [a], made by Voisin [b], would appear to warrant such a conclusion, as also a passage in Ruysch [c], to which Bernutz [d] calls attention, and in which he states most clearly, in the year 1691, that he has seen blood pass from the cavity of the uterus through the Fallopian tubes into the pelvis, in cases of occlusion of the cervix uteri, and confirms his statement by a description of a *post mortem* examination that he witnessed. In an extract made by Puech [e] from the *Acta Medica Berolini* [f], a clear case of hæmatocele from rupture of the right Fallopian tube is related. Pelletan [g] in the year 1810 published an account of a case that

[a] Hippocr., Ἐπιδημ., v. § 1, ἐν Ἠλίδι, κ.τ.λ.; Γυναικείων, i., ἔστιν ἧσιν ἐπὴν δίμηνα . . . . καὶ κατὰ τὴν ἑδρήν.

[b] Voisin, *De l'hæmatocèle retro-utérine*, 1860.

[c] Ruyschii, *Observationum anatomo-chir., Centuria*, Obs. 85.

[d] Bernutz, *Archives générales de médecine*, 1848.

[e] Puech, *De l'hæmatocèle péri-utérine*, 1861.

[f] *Acta medica Berolini*, 1720, tom. ii. p. 120.

[g] Pelletan, *Clinique chirurgicale*, Paris, 1810, tom. ii. p. 106.

came under his notice, where an effusion of blood into the sac of the peritonæum was caused by rupture of the right ovary. Two cases seen by Récamier[h], one in 1831, the other in 1840, in both of which he punctured by the vagina and let out the effused blood, fall into this category. After him Laugier[i] and Velpeau[k] contributed something to the scanty knowledge of the matter, the latter of whom relates cases of sanguineous effusion into the retro-uterine cul de sac, and suggests the treatment of the same by puncture.

Bernutz[l] claims justly the honour of having been the first to shew the position and relation that these tumours hold to the uterus, as based upon *post mortem* examination: he it was who first maintained their direct dependence on a retention of the menstrual blood, and paved the way for the further elucidation of their pathology by future workers. Among these, Nélaton[m] and his pupils Vigués[n] and Fenerly[o] occupy the first rank, the former of whom has given a succinct account of blood extravasations in the neighbourhood of the uterus, and classified them under the title of *Hæmatocèle rétro-utérine;* the latter by a careful collection and publication of cases have added very important contributions. From this time may be dated the positive recognition by the French school of these tumours as distinct and by no means infrequent pathological phenomena, and up to the present day they have been continually the subject of repeated discussion and minute investigation. It will suffice to mention the names of Huguier[p], Richet[q], Prost[r], Puech[s], Trousseau[t],

[h] Bourdon, *Sur les tumeurs fluctuantes du petit bassin, Revue médicale,* 1841, p. 41.

[i] *Dictionnaire de Médecine,* tom. v. p. 68.

[k] Velpeau, *Médecine Opératoire,* 1839, tom. iv. p. 350; *Annales de la chirurgie Française,* 1843, tom. vii. p. 429.

[l] Bernutz, *Archives génér. de médecine, Juin, Août, Décembre,* 1848; *Février,* 1849.

[m] Nélaton, *Gazette des hôp*^{x}., 1851, p. 572; 1852, pp. 46—66.

[n] Vigués, *Thése,* 1850.

[o] Fenerly, *Thése,* 1855.

[p] Huguier, *Bulletin de la société de chir.,* 1851, p. 141.

[q] Richet, *Traité de l'anat. chir.,* Paris, 1854, p. 736.

[r] Prost, *Thése,* 1854.

[s] Puech, *Comptes rendus de l'acad. des sciences,* 1858; *De l'hæmatocèle périut.,* 1858, 1861.

[t] Trousseau, *Gaz. des hôp*^{x}., *Juin,* 1858.

Nonat[u], and Voisin[x] as pre-eminent among those who have toiled in this field of research.

It is strange to find how little has been done by the Germans to advance our scanty knowledge of the subject. The only communication of any importance as yet published in Germany is that by Braun[y], who gives a short sketch of the nature and seat of hæmatocele, illustrated by several cases observed and treated by him in the hospital of Vienna. Scanzoni[z] gives a very short summary of the views of French writers, but makes no original contributions. Seyfert of Prague states in his clinical lectures that, since his attention was drawn to the subject by Nélaton's remarks, he has had constant opportunity of observing the disease in his wards, and could further recall cases that he had seen in his former practice, the nature of which he had not at the time understood. He has unfortunately published nothing upon the subject, which is the more to be regretted because not only would the number of cases that he has observed swell materially the list of those already known, but also any observations that he might make would be entitled to the greatest weight on account of his large experience and vast practical knowledge. Tilt[a] gives the most detailed account of hæmatocele that any English writer has as yet published, and relates one interesting case that came under his treatment in private practice. West[b] gives a *résumé* of what was known at the time that the last edition of his work was published, and adds a description of four cases observed in his wards. Bennet[c] notices the matter very briefly.

PATHOLOGY.

In examining this most important part of the question, I propose first to inquire into the exact situation that the blood

[u] Nonat, *Gaz. hebdom. de méd., Août*, 1858; *Sur les maladies des femmes*, 1860, p. 237.

[x] Voisin, *op. cit.*

[y] Braun, *Wiener Zeitschrift der Gesellschaft der Aerzte, Jänner*, 1860; *Wiener Medizinische Wochenschrift*, 1861, No. 35, &c.

[z] Scanzoni, *Lehrbuch der Krankheiten der weiblichen Sexualorgane*, p. 310, 2nd edit.

Tilt, On Diseases of Women, p. 3, 2nd edit.

[b] West, On Diseases of Women, 1858, vol. ii. p. 34.

[c] Bennet, A Practical Treatise on Inflammation and other Diseases of the Uterus, 4th edit.

occupies, as demonstrable by *post mortem* evidence, and then to point out the various sources from whence it may flow. It may be stated most positively that in the majority of cases the blood is poured out into the sac of the peritonæum, where, falling by natural gravitation into the most depending parts, it occupies especially the recto-uterine cul-de-sac of Douglas,—the well-known pouch that is formed by the reflexion of the peritonæum from the rectum on to the posterior surface of the uterus and upper part of the vagina. Hence the name of "hæmatocèle rétro-utérine" given by Nélaton to this form of extravasation, a name that expresses admirably the nature and seat of the tumour, as it is commonly met with, but which is open to criticism on the ground that cases occur in which tumours of identically the same nature and dependent on the same pathological process hold a totally different position with regard to the uterus. On opening the abdomen of a person who has died of this affection, the appearance presented will differ much in cases where the ruptured vessel is large and the extravasation sudden and rapid, and in those where it is smaller and the extravasation slow and gradual: in the former, the whole of the cavity of the abdomen is found to be full of blood, part fluid, part clotted, with no more advanced signs of peritonitis than a general reddening and injection of the whole membrane; in the latter, the signs of peritonitis are much more developed, adhesions have formed between the different organs, more especially those which occupy the pelvis, the original seat of the extravasation, and have given rise to a peculiar condition of the parts therein contained; the upper and posterior part of the uterus has become firmly united with the sigmoid flexure of the colon and with those coils of the small intestine which lie in contact with it, so as to convert the recto-uterine cul de sac into a complete adventitious cyst, containing more or less altered blood, limited anteriorly by the posterior surface of the uterus, upper part of the vagina, and posterior fold of the broad ligament, posteriorly by the rectum, and above by adhesions. It will thus be readily seen how the neighbouring organs must be pressed upon and displaced, if the effusion into this circumscribed space continue; the uterus and bladder are driven forwards and crushed against the pubis, while the rectum is thrust back and flattened against the sacrum; the adhesions above and the soft parts below gradually yield to the pressure,

but at length give way, and the blood finds an outlet by the rectum or vagina, or breaking through the adhesions that had previously shut it off from the upper part of the peritoneal sac, it causes rapid death by general peritonitis. The blood was found to be intraperitoneal in 38 out of 41 *post mortem* examinations that I have collected from all sources, and a synopsis of which is added to this paper; in 26 of these 38 it was diffused, in 12 circumscribed and limited to the retro-uterine cul de sac. Secondly, the seat of the blood is in exceptional cases extraperitoneal, that is to say, the effusion takes place into the loose connective tissue that exists between the peritonæum and the organs that it invests, holding the same relation to the parts around as the pus in the common form of pelvic abscess. The starting-point of the extravasation is in such cases usually between the layers of the broad ligament, on account of the numerous and large blood-vessels here met with; from thence it may dissect its way either anteriorly, posteriorly, or laterally, pushing before it and separating from its attachments the vesico-uterine and recto-uterine reflexions of the peritonæum, or extending even into the iliac region and up as far as the kidney. The above statement is directly denied by many French writers, among whom Nélaton and Voisin are the first to urge that extraperitoneal hæmatocele does not exist, but that in all cases the blood is in the sac of the peritonæum. On the other hand, there are not wanting observers of weight, at the head of whom is Nonat, to maintain the opinion that I have thought right to support. Now what do we find proved by *post mortem* examination? That the evidence is almost entirely in favour of the intraperitoneal seat of the hæmorrhage, but not entirely. In the remaining 3 cases of the 41 before quoted, the blood was found in one, case 38, to be really extraperitoneal; in the second, case 39, all the evidence is in favour of its being extraperitoneal; in the third, case 23, the blood was found filling the pelvis and imbedding the uterus, which points to the same conclusion. Prost[d] relates two well-authenticated cases, in one of which the blood was effused between the layers of the broad ligament, in the other it occupied the connective tissue behind the uterus. Becquerel, in his clinical lectures at the hospital of La Pitié, spoke to us of a case that he had seen, in

[d] Prost, *op. cit.*

which more than two pounds of blood were found outside the peritonæum, the blood having dissected its way between the different organs and displaced them all. Of 55 cases followed by recovery in which the position of the tumour was carefully ascertained by examination per vaginam or per rectum, in 52 it was detected *behind* the uterus which it had pushed forward, extending in some instances more or less to the right or left; in 2, cases 82, 83, it was found *in front of* the uterus, extending neither posteriorly nor laterally; in the remaining case, 66, described by Voisin, it was felt in front of and to the left of the uterus, pushing the cervix backwards and downwards upon the rectum; and therefore, although, on examination per rectum, a tumour could be felt behind the uterus as well as in front, I have thought fit to separate this from the other clearly defined *retro-uterine* hæmorrhages. Here also, in this analysis of cases, we have, if not positive proof, at all events strong evidence in favour of the much greater frequency of intra-peritoneal effusions, for we find that in 52 out of 55 cases the symptoms were, with slight modification, the same, and that the position of the tumour, as ascertained during life, was the same as in the 12 cases already quoted, in which the *post mortem* examination disclosed the real seat occupied by the blood; but we have also 3 cases, in at least 2 of which circumstances warrant us in drawing the conclusion that the blood was extraperitoneal; for it is scarcely conceivable that blood poured into the sac of the peritonæum could remain limited to the anterior or vesico-uterine pouch, and not fall, in part at least, into the posterior or recto-uterine; whereas in these 2 cases, 82, 83, the tumour is stated to have contained more than two pounds of blood, to have pressed down the anterior wall of the vagina so as to protrude beyond the orifice of the urethra, to have displaced the uterus upwards and backwards, but not to have been felt at all behind the uterus or vagina. To sum up, it may be asserted that extravasations of blood in the neighbourhood of the uterus are proved to be almost always intra-peritoneal, but that they are sometimes extra-peritoneal; that the possibility of the more frequent occurrence of the latter should be kept in view, on the supposition that they are less likely to be fatal than the former, and therefore less often to be demonstrated by *post mortem* examination.

Next as regards the various *sources of the effusion.* Injuries

to the walls of the abdomen or to the organs contained therein, and the consequent extravasation of blood into the peritonæum; as also effusions caused by rupture of aneurysms of the iliac arteries[e], may be mentioned as possible sources of the hæmorrhage in question: but my object here is to shew how the uterus, its appendages, and the blood-vessels in its immediate neighbourhood, may constitute the source from whence these blood tumours originate. This may happen in one of five ways.

A. *By obstruction to the natural outlet of the menstrual blood, which regurgitates into the peritoneal cavity either through the ostia abdominalia of the tubæ or through a rent in some part of their walls.* Inasmuch as many well-authenticated cases are on record in which this has been proved to be a source of these effusions, it cannot be omitted from the present inquiry: I need only refer to cases 11 to 15, taken from the elaborate work of M. Bernutz, as also to some remarks of Brodie[f] on the subject, to shew that imperforate hymen, absence or obliteration of the vagina either congenital or acquired, and imperforation of the cervix uteri may prevent the natural efflux of the menstrual blood, force it to regurgitate into the sac of the peritonæum, and cause death by peritonitis.

B. *By hæmorrhage into the Fallopian tube at the menstrual epoch and escape of the blood, either by the ostium abdominale or by rupture from over-distension.* All those who have studied the subject of menstruation concur in the belief that the lining membrane of the tubæ becomes much congested at the normal menstrual period; many, however, think that it furnishes a small part of the discharge by the occurrence of a slight but decided hæmorrhage: but there can be no doubt that if the congestion be abnormal and excessive, the membrane in question supplies no inconsiderable part of the blood that escapes in an attack of what is called menorrhagia. Now the very fact of hæmorrhage under these circumstances presupposes a swollen condition of the mucous membrane, an increased secretion of mucus, and a tendency to partial, if not complete, closure of the small ostia. If the ostium uterinum, always the smaller of the two, be thus completely closed, while the ostium abdominale remains open, the blood will force its way by pressure through the latter directly

[e] Guy's Hospital Reports, New Series, No. vii.; cf. Tilt, *op. cit.* 1853, p. 260.

[f] Brodie, London Medical Gazette, vol. xxvii. p. 810.

into the peritonæum. If, on the contrary, both ostia are closed, the tuba becomes more and more distended, till rupture ensues, and all the symptoms of hæmatocele declare themselves.

In 2 only of 8 cases related in illustration of this had the former occurred, the phenomenon of simple regurgitation without rupture being best studied in cases that come under series A. In the remaining 6 the tuba was ruptured. The fact that the first symptoms of the attack shew themselves, as a rule, at a menstrual period in which the flux is prolonged and excessive, offers a strong argument in favour of the above explanation. In 6 of the above-mentioned 8 cases it came on during, or just after, the time of the catamenia, and in 5 menorrhagia was present. Such evidence as this renders it more than probable that the same cause was at work in several other similar cases related, but in which the hæmorrhage was not sufficiently formidable to destroy life: cf. cases 16 to 23.

C. *By rupture of the sac in extra uterine fœtation, more especially in tubal pregnancy:* cf. cases 1 to 10.

D. *By rupture of the investing tunic of a congested ovary, and escape of blood either from a Graafian vesicle, which is the seat of extraordinary hæmorrhage, or from the parenchyma of the organ into which a blood-vessel has burst.* I have collected 11 cases in which the autopsy shewed clearly that this had occurred. To these observations may be added that made by Scanzoni[g], and related by him under the head of "Apoplexy of the Ovary," in which a girl, æt. 18, suddenly died at the time of menstruation with symptoms of internal hæmorrhage, and in whom the autopsy disclosed a sac in the right ovary, about the size of a hen's egg, and filled with clotted blood, in the posterior wall of which was a rupture more than an inch in length, through which more than six pounds of blood had been poured out into the peritonæum. Here, too, we cannot avoid the conclusion that menstruation plays a most important part. It is known that at each catamenial period a small and unimportant hæmorrhage takes place into the Graafian vesicle from whence the ovum is cast forth; but it happens occasionally that this hæmorrhage becomes excessive, and so distends the vesicle, that it forms a tumour of considerable size, which, yielding to the pressure from within, bursts and discharges its contents. Or, on the other hand, a sudden shock, as a blow or fall,

[g] Scanzoni, *op. cit.*, p. 354.

occurring at the time of the catamenia, may determine a rupture in one of the vessels of the parenchyma of the ovary, and give rise to the so-called "apoplexy of the ovary." In corroboration of this it will be found that in 7 of the 11 cases, in which mention is made of the condition of the menses, 5 were subject at the time of, or just before, the attack, to menorrhagia; in the other 2 the first accession of the symptoms was during the menstrual period, and was ushered in by an abrupt suppression of the discharge: cf. cases 24 to 34.

E. *By rupture of a varicose vein in the pampiniform plexus of the ovary.* Richet[h] more than any other observer has studied the anatomy and pathology of these veins: he shews how the veins from the upper part of the vagina, from the fundus and cervix of the uterus, from the round ligament, tuba, and ovary, anastomose freely, and form between the layers of the broad ligament a long-meshed plexus. He further points out that the fact of their being without valves renders them extremely liable to be influenced by any obstruction to the circulation in the vena cava. He has frequently in dissections found them remarkably varicose, so as sometimes to form a mass resembling that met with in varicocele of the spermatic cord. These veins become considerably congested at the time of the catamenia, but are more especially apt to become varicose during pregnancy, or in women who have borne many children: in the latter the veins of the labia are not seldom seen to be varicose, and hence Bernutz, not without reason, suggests, that if hæmatocele occur in a pregnant woman who has varicose veins of the labia, or even of the legs, the probability is great that the veins of the pampiniform plexus are also varicose, and that one of them has burst. Of the whole number of *post mortem* examinations made, in 4 only was the effusion traceable directly to this source; in these the quantity of blood extravasated was, as would be anticipated, very large, and death followed in a few hours: cf. cases 35 to 38.

CAUSE.

Predisposing.—Age. An analysis of 91 cases, in which the age is noted, shews that the greatest tendency to accidents of this kind is met with at the very time of life when the generative

[h] Richet, *op. cit.*, p. 736.

functions of the woman are in the highest state of activity. Thus 4 only were under 20; 51 were between the ages of 20 and 30; 17 varied between 30 and 35; 16 between 35 and 40; 1 only was above 40. *Catamenia.* Remarks made in treating of the sources of hæmorrhage have already drawn attention to the frequency of its occurrence at the time of, or directly after, the catamenia. It may here be added that a strong predisposition exists in women who have been previously subject to menorrhagia. In 76 cases notice is taken of the condition of the menses at the time of and before the attack; (those cases being excluded in which the hæmorrhage depended on obstruction to the exit of the menstrual blood and on extra-uterine fœtation): in 36 of these the first symptoms of the hæmorrhage appeared at the time of the catamenial period; in 40 menorrhagia was present at the time of, or shortly before, the attack. *Childbirth.* Women who have borne children seem to be much more predisposed than those who have not. 58 of 64 women, whose previous history, with regard to this point, is distinctly related, had either borne children or miscarried. *Previous health.* A strong healthy woman is more liable to be attacked than one that is feeble and delicate. 53 of 66 are stated to have been previously strong and robust.

Exciting.—A glance at the Synopsis will shew in how many cases a violent shock, either of body or mind, at the time of the catamenia, has sufficed to bring about directly the hæmorrhage. A blow, a fall, violent exertion, as that of dancing or carrying a heavy weight, a sudden chill applied to any part of the body, or even, in some cases, a sudden fright occurring at the menstrual period in a woman subject to menorrhagia, can all be instanced as exciting causes.

SYMPTOMS.

The symptoms that mark the occurrence of these sanguineous effusions, though, looked at from a general point of view, the same in all cases, yet differ so materially in degree, according to the amount of blood effused and the rapidity of its effusion, that they may be conveniently set forth in the form of three short descriptions or sketches of cases founded on clinical facts. A young woman of naturally good health, but whose menstrual discharge

has for some time past been unusually profuse, receives a blow or a shock, or is exposed to a chill, probably, but not necessarily, at the time of the catamenia: she is suddenly seized with a most violent pain in the lower part of the abdomen, her pulse becomes small and thready, her extremities cold, she vomits, her countenance becomes pinched and ghastly, and death follows in the course of a few hours, sometimes within an hour. Here is a group of symptoms exactly resembling those met with in peritonitis from perforation of the intestinal canal in some part of its course, or from rupture of some of the large organs in the abdomen; but the history of the case and the part of the abdomen in which pain is first felt will aid in the diagnosis. This is abundantly illustrated in the Synopsis, as also by the following case that occurred in Prague, and for the history of which I am indebted to the kindness of Professor Seyfert.

M. N., æt. 18, maid-servant, while carrying a large vessel of water on her back, upset the same, and received the whole of its contents over her back and shoulders. She fell down suddenly and died rapidly. The occurrence took place at the time of the catamenia. The autopsy disclosed an immense mass of blood in the sac of the peritonæum. On examining the organs in the pelvis, one of the veins of the left tuba was found to be ruptured, and a small opening in the layer of peritonæum that covered the tuba had allowed the blood to escape into the abdominal cavity. The uterus and ovaries were in the condition usually observed at the menstrual period.

In the second group of cases the effusion is large but more gradual, and, if death follow, it is at a later period, though they are by no means necessarily fatal. The attack commences, as a rule, in a sudden manner, and under the same circumstances as before, with violent pain in the lower part of the abdomen, with nausea or vomiting, often rigor and general symptoms of fever. The pain, at first so violent, abates somewhat in its intensity after a time, and is succeeded by what the patients describe as a bearing-down sensation of weight in the lower part of the abdomen. Sometimes a discharge of blood per vaginam, a continuation of the menstrual flux, persists throughout the whole course of the disease, becoming much increased in quantity at each succeeding menstrual period; but more often it ceases abruptly at the first outbreak of the attack. There is great

prostration of strength, and often a remarkably anæmic appearance, more particularly in those cases where the menstrual discharge continues at the same time that the internal hæmorrhage is going on. Painful micturition soon appears, and if the tumour is large, complete retention of urine: the bowels are at the same time constipated or completely obstructed. The abdomen, which at first presented nothing abnormal to the sight or touch but extreme tension of the abdominal muscles, is soon found to be the seat of a tumour, occupying first the hypogastrium, and thence extending into the umbilical, iliac, and lumbar regions; spreading generally to one side unequally; smooth, firm, and elastic to the touch; and fixed, or locked as it were, in the pelvis: its limits are often difficult to mark out accurately from meteorismus present as a consequence of obstruction in the lower part of the bowel, and of peritonitis. On introducing the finger into the vagina, the cervix uteri cannot at first be felt, but the finger comes directly upon a large mass which seems to be pushed or wedged in from behind the uterus and vagina, partially obliterating the latter: it has sometimes a doughy sensation, sometimes fluctuates indistinctly when pressure is made upon the abdomen, and is always extremely sensitive. If the finger be carried forwards and turned upwards behind the symphysis pubis, the cervix will there be found, but the body of the uterus cannot generally be followed. In exceptional cases the tumour is felt projecting laterally or even in front of the vagina and uterus, which it naturally then pushes to the side or backwards; but in the great majority of cases the state of parts above described will be found to exist. On examination per rectum the same tumour is found pressing the anterior wall against the posterior, and sometimes completely obstructing its canal. Cases of this kind are numerous, as the Synopsis will shew. The following, observed by me in the wards of M. Trousseau in the Hôtel Dieu, while working with his chef-de-clinique, M. Moynier, is to the point.

A girl, æt. 24, was admitted into the Hôtel Dieu, Salle St. Bernard, in the beginning of November, 1860, with the following history:—She had been taken ill three weeks before with slight pain in the lower part of the abdomen and back, together with leucorrhœa. The catamenia commenced directly after, and continued to flow till three days before admission, when she was suddenly seized with violent pain in the lower part

of the abdomen, so that it was necessary to carry her to the hospital. On the first examination the hypogastric region was found to be extremely painful and tender, but no tumour was detected. On vaginal examination the cervix was found hot and exquisitely painful, but no tumour could be felt; the uterus was also moveable.

Ordered, *Hirudines xx. abdom.—enema commune.*

Two days afterwards a small rounded tumour was felt on vaginal examination behind the cervix uteri, filling up the posterior cul-de-sac of the vagina, and pressing back the anterior wall of the rectum; at the same time a small mass could be felt in the left iliac region in the direction of Poupart's ligament, which was supposed to be the left ovary pushed aside by the tumour. From this time the tumour continued to increase in size, extending into the hypogastric and left iliac regions till it reached two inches above the umbilicus, occupied part of the left lumbar, and made its way into the right iliac and lumbar regions. At the same time the cervix uteri was gradually pushed forwards and upwards till it came almost in contact with the pubis, so that the finger could scarcely be pushed between it and the pubis; the fundus uteri could not be traced, but seemed to form one mass with the tumour, which nearly filled the upper half of the vagina. During this time there has been gradually increasing prostration, continued suffering, and obstinate constipation.

Diagnosis: "Periuterine inflammation, with formation of abscess."

Dec. 16. As the tumour had become extremely hard and prominent at one part of the left iliac region, Trousseau thrust in a small trocar at this point: on withdrawing the stilette nothing flowed from the canula. He then passed a small wire in through the canula, which might, he thought, be obstructed; but it passed for some distance into the substance of the tumour, meeting with slight resistance on all sides as if it were surrounded by a sponge, without however producing any discharge from the canula. The urine was then drawn off with the catheter, and the trocar was again plunged into the mass nearly in the mesial line, from 1 to $1\frac{1}{2}$ in. above the symphysis pubis, when there spirted forth blood to the amount of 8 or 10 oz., liquid, not coagulable even after standing twenty-four hours, and found, when examined microscopically, to have its globules much altered.

Dec. 18. The pain has considerably diminished since the operation.

Dec. 22. The tumour is decidedly smaller, contracting principally on the right side. General condition of patient much improved.

Jan. 5, 1861. An attack of pneumonia supervened.

Jan. 7. Pneumonia abating. Tumour scarcely perceptible to touch.

Jan. 27. Menstruation has occurred twice since the commencement of the attack, the first time attended with slight enlargement of the tumour; it has now returned for the second time without a single bad symptom, and the patient is convalescent.

Feb. 2. The uterus has recovered its normal position: no trace of the tumour remains.

She has left the hospital cured.

The following case occurred a few months ago in the hospital at Prague, for notes of which I am also indebted to the courtesy of Prof. Seyfert.

In the month of September, 1862, M. N., æt. 33, kitchen-maid, was brought into the department for diseases of women with symptoms of hæmorrhage into the sac of the peritonæum,—violent pain in the abdomen, which was distended with gas, cold extremities, pulse small and not to be counted, nausea and vomiting. She recovered somewhat with the help of stimulants; purgatives were then freely administered, and after fourteen days she was by request discharged, as all bad symptoms had subsided. At this time a small and rather painful tumour could be felt through the abdominal walls, occupying nearly the position of the right ovary.

Three weeks later, on the recurrence of the catamenia, she was again seized with violent pain in the back, and fever, so that she was compelled to re-enter the hospital. On admission the menstrual discharge was found still present and profuse in quantity; the tumour before felt on the right side had somewhat increased in size. Vaginal examination detected a tumour of the size of two fists, very firm and elastic, painful to the touch, and fluctuating, which was situated behind the uterus. Constipation, and retention of urine.

Diagnosis: "Retro-uterine Hæmatocele."

The urine was drawn off with the catheter for the next few days: purgatives were again administered. The symptoms continued to abate for the next five days, the tumour, however, remaining as before. On the sixth day, a woman in the next bed was seized with convulsions, which so frightened her that she sprang out of bed, and at the same moment felt a violent pain in the abdomen which was followed by rigor and collapse. Three days after she died.

Autopsy: The general cavity of the peritonæum was full of a bloody fluid, the blood having escaped from a sac situated behind the uterus, which sac had burst. This adventitious cyst or sac was formed by adhesions between the rectum on one hand, and the uterus, right Fallopian tube, and ovary on the other; it contained a quantity of blood, part fluid, part in clots, in a state of decomposition. The right ovary, of the size of a hen's egg and filled with clotted blood, was readily recognised, and was found to have burst and discharged its contents into the cavity of the above-mentioned adventitious cyst.

This case is one of remarkable interest, in that the condition of the parts, as seen after death, explains exactly the nature of the symptoms and course of the disease. It may be well taken as a type of the hæmatocele. Thus we have the first severe attack, evidently caused by hæmorrhage into the peritonæum, from which the patient rallied and was recovering; then on the return of the catamenia a fresh outpouring of blood; next, a tendency in the effused blood to limit itself and become encysted—manifestly a step towards recovery, had it not been for the shock causing rupture of the adhesions which bounded the cyst, and death from general peritonitis, in the manner already shewn when treating of the pathology.

A third class of cases is characterised by symptoms essentially the same as in the last, but in a very much milder form. The history of the commencement of the attack is here the same, but the pain is slight, the fever moderate, the effusion is seldom large enough to be felt above the pubis, but is detected on vaginal examination somewhere in the neighbourhood of the uterus, most often in the cul-de-sac of Douglas. A few days, or at most a few weeks, suffice for recovery, the tumour disappearing almost as quickly as it came. These are, I believe, by far the most common of all forms of hæmatocele. The objection may be urged

that, as they do not terminate fatally and are not large enough to necessitate puncture, the presence of blood effused as the cause of the tumour is merely conjectural; but, it may be answered, their close resemblance to the second group of cases, the nature of which is unmistakeable, the position occupied by the tumour, and the rapidity with which it is absorbed, are sufficient to justify the diagnosis. It is further not unreasonable to suppose that the adhesions so often met with between the different layers of peritonæum in the immediate vicinity of the uterus may have been, in some cases at least, caused by slight attacks of partial peritonitis consequent on such small localised extravasation.

I select as an example one of several such cases observed in the hospitals of Vienna and Prague:—

Aug. 11, 1862. A. B., æt. 28, menstruated for first time at age of 18; menstrual discharge always profuse, lasting eight days. Confined of living child six months ago. Illness commenced four weeks ago, directly after a menstrual period, with pain in the abdomen and slight fever. On examining the abdomen a tumour is found reaching nearly to the umbilicus, which proves to be the distended bladder, for it disappears as soon as a large quantity of urine has been drawn off with the catheter. On vaginal examination the uterus is found to be pushed forward, and behind it is a tumour, elastic, fluctuating, and painful on pressure.

Diagnosis (of Prof. Seyfert): "Retro-uterine hæmatocele of moderate size."

Ordered, cold wet rags to abdomen; quinine and opium.

Aug. 19. Pain has subsided; tumour much smaller.

Aug. 25. Tumour has entirely disappeared.

It has been thus shewn that some cases may terminate in death, others in speedy recovery. But it will be well to inquire into the course that the more chronic forms may run, which are included in the second class or group; and here it will be found that one of four events may take place. 1st. After the blood has been limited to the pelvis by adhesions, in the manner already described, it may burst its way through this adventitious cyst wall that circumscribes it, and cause death at a later period by general peritonitis. 2nd. It may be discharged spontaneously per rectum, in which case it has for the most part a peculiarly fetid odour. This happened in 12 cases of those collected; in 8

the termination was favourable, in 4 only unfavourable. This affords in all cases great relief, but is sometimes followed by death from admission of air into the cyst and putrefaction of its contents.

The following, which also occurred in Prague, is an instance of this.

The case was one in which "retro-uterine hæmatocele" had been recognised during life, and a discharge of altered blood per rectum had taken place. The woman died of dysentery three weeks after this occurrence. The autopsy disclosed an adventitious cyst occupying the cul-de-sac of Douglas, and bounded by adhesions between the adjacent layers of peritonæum; it contained a small quantity of rust-coloured fluid, and communicated with the rectum by an opening large enough to admit the index finger. The hæmatocele was caused by rupture of the left ovary into which blood had been extravasated. 3rd. Spontaneous discharge of the blood per vaginam seems to be of less frequent occurrence than the preceding. 6 cases of the kind are recorded, in 5 of which recovery followed, in 1 death. 4th. The blood may be gradually absorbed and the tumour may thus completely disappear.

DIAGNOSIS.

In order to avoid errors in the diagnosis, an accurate knowledge of the history, more especially the way in which the attack commenced, is of paramount importance. A mere examination, minute and careful though it may be, of the symptoms present, will by no means suffice to distinguish these effusions from other tumours met with in this region, with which they have ere now been confounded, and that by the very men who have most carefully studied their pathology. Thus they are sometimes scarcely to be distinguished from *exsudations in perimetritis*, and above all from *abscesses* which form in the neighbourhood of the uterus. In both is violent pain present, in both vomiting and fever, in both a tumour can be felt, sometimes fluctuating, sometimes hard and firm, behind the uterus, protruding on the one side into the vagina, on the other side into the rectum; but a knowledge of the history will generally decide the question. Thus, has it formed gradually after childbirth or miscarriage, or has it come on sud-

denly about the time of the menstrual period in a woman subject to menorrhagia? Again, the abscess is usually more diffused than the hæmatocele, and will be seldom felt so exactly limited to the cul-de-sac of Douglas as the hæmatocele. Secondly, *ovarian cysts* are met with which, while still small, force their way down between the uterus and rectum, and give exactly the same sensation to the finger as the hæmatocele, while they necessarily produce the same disturbance in micturition and defœcation. Still more closely do *sanguineous cysts of the ovary*, which may occupy the same place, resemble hæmatocele. Dr. Schott, assistant of Professor Rokitansky, tells me that he has dissected in the dead-house at Vienna several bodies in which simple cysts occupied the recto-uterine pouch, so as to be mistaken for hæmatocele; he speaks of two cases in particular in which the cyst contained fat and hairs.

In illustration of the sanguineous cyst, the following *post mortem* examination that I saw made in Vienna, and for notes of which I must thank Dr. Schott, may well be described.

Woman, æt. 37. On opening the abdomen, the peritonæum was found covered everywhere with pigment-stained false membrane which had formed adhesions between the different organs. The bladder was distended; the uterus, somewhat enlarged, was situated higher than usual, and united by adhesions to the sigmoid flexure, which had a remarkably long meso-colon. The coils of the small intestine lay over to the right side, while to the left was a tumour of the size of a man's head, smooth externally, fluctuating, covered with peritonæum that had a slate-grey colour, and united in part to the coils of intestine that lay near it. On attempting to separate these it was torn, and a quantity of reddish-brown fluid with coagula escaped. The tumour was found to be formed by the left ovary, that had become the seat of cystic degeneration: it occupied the recto-uterine excavation, had forced the uterus upwards and forwards, and had pushed the rectum over to the right side; at the same time forcing its way downwards, it had thrust forward the posterior wall of the vagina, into which it projected, and formed there an elastic tumour. The right ovary was connected with the posterior surface of the uterus and parts surrounding by adhesions, and was enveloped in false membranes stained with pigment. On opening the cyst, it was found that at its outer

end was seated a cyst of about the size of a hen's egg, containing a puriform fluid, and communicating with the larger cyst that constituted the main body of the tumour. The contents of this latter consisted of a pale-red thick fluid mixed with large coagula: its walls, here thick, there thin and readily torn, were pigment-stained and covered with a closely adherent layer of puriform fluid: here and there were seen protrusions from its inner surface which represented cysts filled with blood.

Hæmorrhage of this kind into the interior of ovarian cysts may occur, says Rokitansky, either by rupture of blood-vessels in dendritic growths that often spring from the cyst-wall, or from bursting of a vein in the wall.

The principal points of importance in the diagnosis of these cases are, the age of the patient (the older the woman the more likely is it to be a cyst) and the slow formation of the tumour in the case of a cyst. But if, as in the above case, peritonitis occur, and the history is imperfect, the diagnosis must be regarded as impossible to establish.

Lastly, a hæmatocele has been twice mistaken for a fibrous tumour of the uterus[i], and once for a gravid uterus in retroversion[k].

After having satisfactorily determined the nature of the case, the question that next arises is, what is the source of the hæmorrhage? To this it is often impossible to give an answer; but a short mention must be made of the peculiarities which characterize two of the forms of hæmorrhage already mentioned,—those, namely, in which there is obstruction to the menstrual flux, and those in which the blood flows from the ruptured cyst in extra-uterine fœtation. In order to recognise the former of these, a correct knowledge of the antecedents is also indispensable. A consideration of the fact that the catamenial discharge has never appeared, although the general symptoms that accompany menstruation have been present every month; that the girl has been subject to pain in the back, to a sensation of bearing down in the pelvis, and often, as pointed out by Bernutz, to intermittent pains resembling those of childbirth and caused by the contractions of the distended uterus; the gradual formation of a tumour in the hypogastric region, having the form of

[i] Engelhardt, *Thèse*, Strasbourg, 1858: cf. case 42.

[k] Case of Mikschik, quoted by Voisin, *op. cit.*, p. 195.

the enlarged uterus; the discovery that the hymen is imperforate and is protruded by the mass of blood that is behind it, or that the vagina is occluded or absent, or that the cervix uteri is obliterated, will afford positive evidence of the nature of the case. If these antecedents be not taken into consideration, the diagnosis must be imperfect, for the symptoms caused by the mere escape of blood into the peritonæum are just the same as when it is poured forth from any other source. Hæmorrhage from rupture of the cyst in extra-uterine fœtation is always extremely difficult and in many cases impossible to diagnose. That form of extra-uterine fœtation in which there is the greatest probability of rupture is that in which the development of the ovum takes place in some part of the tuba: in such a case the accident may happen in the few first weeks after conception, and give rise to an effusion of blood into the peritonæum in no respect to be distinguished from the other forms of hæmatocele. It is true that in many cases there has been suppression of the menses for some time previously, and the women have supposed themselves to be pregnant; but this is by no means always the case, and Bernutz draws attention to the fact that there are often attacks of menorrhagia which simulate very closely the catamenial discharge: cf. cases 1 to 10.

Where, however, the fœtus is already some months old and the case has been carefully watched before the sac bursts; where a tumour has been known to exist which is not the enlarged uterus, and which has formed gradually before the outbreak of the terrible symptoms caused by the hæmorrhage; above all, if there be milk in the breasts, there will be sufficient reasons for a strong suspicion of the nature and source of the extravasation.

Lastly, if the accident occurs in a woman who has already borne many children, or who is at the time pregnant, and in whom large varicose veins are seen in the labia, the probability is great that the blood comes from one of the veins of the pampiniform plexus. A greater refinement in diagnosis than this seems to be beyond our reach.

PROGNOSIS.

If there be good grounds for the supposition that the retained menstrual blood has regurgitated, death may be almost with cer-

tainty prognosticated. A very small quantity of this altered pitchy blood will cause a most intense inflammation of the peritonæum, irritating almost as painfully as urine or pus. This is well instanced in case 11, where a few drops sufficed to bring on an attack of peritonitis which destroyed life in a few days. Again, the more the symptoms point to extra-uterine fœtation as the source of hæmorrhage, the more gloomy must be the prognosis: these cases all terminate fatally, the sufferers generally falling into a state of collapse from which they never rally; as will be seen by consulting the Synopsis. In all other cases the probable result must be determined by the greater or less severity of the symptoms at the beginning of the attack: the more terrible the pain, the more complete the syncope, the more likely is death to follow.

TREATMENT.

For the sake of brevity it will be convenient to take the three different forms of effusion sketched under the head of symptoms, and consider the treatment appropriate to each.

In the first and terrible form the indications are, to stop the hæmorrhage, to recover from the state of collapse, and to relieve the pain present. These are best fulfilled by the application of cold to the abdomen in the form of cloths wrung out of iced water, in the manner recommended by Voisin and adopted also in Prague; by the administration of stimulants till the pulse recover itself; by full doses of opium, so as to keep the patient in a state of semi-narcotism. It is scarcely necessary to add that the recumbent posture must be strictly maintained. In the second form, where the pain is the most marked symptom and there is less tendency to syncope, a full number of leeches should be applied to the abdomen; opium should be given in large doses, and its effect kept up; ice should be swallowed to check vomiting; and cold or hot applications to the abdomen should be made according to the sensations of the patient. As soon as the violence of the inflammation has abated, and the vomiting has ceased, opium must still be occasionally administered to quiet the pain, which is continually present so long as the tumour is on the increase; the obstinate constipation of the bowels is corrected

by enemata of castor-oil; the bladder is carefully watched, and the urine if necessary drawn off with the catheter. If in spite of all care the tumour continue to increase in size, the question of the necessity of *surgical interference* will be raised: a point on which writers are much at variance. The arguments urged in its favour are, that it relieves at once and most completely the distressing symptoms caused by the pressure, and that, the tension once removed, absorption of the remainder quickly follows. On the other hand, the dangers that attend its performance are, the possibility of wounding a blood-vessel in the vagina or cervix uteri, and the admission of air by the opening, which may give rise to putrefaction of the remaining blood and death from pyæmia. If, however, facts be carefully observed, it will be found that only once has death followed the operation from division of a blood-vessel, and that was in Malgaigne's case: cf. case 42, in which free incisions were made into the cervix uteri with the intention of removing a fibroid tumour of the uterus: also that the dangers of pyæmia, though not ungrounded, are very much exaggerated. Only 2 of 25 cases, in which the operation was performed, died; all derived immediate benefit, and 23 recovered. Hence it may be advised that as soon as the tumour acquires so considerable a size that the functions of the bladder and rectum are seriously impeded, and the patient is being worn out with pain, the operation be performed in the manner recommended by Nélaton. The woman is placed on her back with the legs separated, the pelvis being raised somewhat above the level of the trunk. The surgeon places himself in front of the patient, introduces the index and middle fingers of the left hand into the vagina, and feels for the most salient point of the tumour, taking care to keep as far as possible from the cervix uteri. The canula of a trocar is then passed between the two fingers and pressed firmly against the tumour; lastly, the trocar is introduced into the canula and plunged into the tumour through the wall of the vagina. If the blood do not freely escape, the opening should be enlarged with a blunt-pointed bistoury: a full-sized gum elastic catheter should be left in the wound to prevent its closing, as recommended by Nonat, and the sac should be carefully washed out with lukewarm water once or twice a-day, to prevent as far as possible putrefaction; but only

a few ounces of water should be employed at once, and this should be injected very slowly. The after treatment consists naturally in the employment of nourishing food, of tonics, especially iron, on account of the anæmia present. In the third group of cases, the same medical treatment is applicable as in the second, but a surgical operation is never necessary.

No.	Age.	Children or Miscarriages.	Menstruation before and at time of Attack.	Previous Health.	Onset, Sudden or Gradual.	Most marked Symptoms.	Course of Disease.	Treatm Expect Operat &c
1		5 children.	Cessation of menses for six weeks before commencement of attack.		Sudden.	Violent pain, symptoms of collapse; abdomen much distended, but no tumour detected.		No ope tion.
2	21	No children.	Supposed to be pregnant about two months.	Good.	Sudden.	Pain, collapse; said to have passed while at stool some substance together with blood per vaginam.		Stimul no oper tion.
3			Supposed to be three months pregnant.		Sudden.	Pain, collapse.		
4	24	1 child.	In second month of supposed pregnancy discharge of blood per vaginam, with pain continuing till sixth month, when admission into hospital.	Good.		Pain, with discharge of blood per vaginam; tumour felt above pubes and per vaginam on both sides of uterus.	Gradual increase of distress.	Bleedin local a general operati
5	36	4 children.	Supposed to be about five months pregnant.			Agonizing pain; tenesmus; difficult micturition; tumour occupying left iliac fossa; posterior wall of vagina pushed downwards and forwards by elastic tumour.	Increase of distress.	Turpen enema opium.
6	28	2 children.	Last appearance of menses one month before the attack, followed by constant discharge of blood in small quantity.			Syncope, pain, abdomen distended; small tumour felt behind uterus.		Stimul no ope tion.
7	36	1 child.	Supposed to be three months pregnant.		Sudden.	Violent pain, syncope.		No ope tion.
8						Brought into hospital with symptoms of acute peritonitis; tumour detected in right iliac fossa.		No ope tion.
9			Had suffered from menorrhagia for three months previously.	Good.	Sudden.	Pain, vomiting, great difficulty of micturition and defœcation; large tumour occupying hypogastric region.		Enema dials; operat
10	32	2 children.	For three months before illness menorrhagia, pain in abdomen, and feverish attacks.			Pain, fever, afterwards vomiting and symptoms of general peritonitis; difficult defœcation and micturition; large tumour felt above symphysis, and smaller one in retro-uterine cul de sac; milk in breasts.		Explor punctu small mour.
11	22		Had never menstruated, suffering from the age of 14 till 22.			Pain in hypogast. and loins, more intense at a certain period every month, with gradual enlargement of abdomen, but no impairment of general health.	Relief for few days after operation, followed by symptoms of peritonitis which preceded death.	Crucia cision men, of mu tered

ination sease.	Seat of Extravasation on post mortem Examination.	Source of Hæmorrhage.	Exciting Cause.	Observed or Related by
n in days.	General cavity of peritonæum, which contained an enormous quantity of blood.	Rupture of left tuba, which contained a small fœtus.	Fall.	Littre, *Mém. de l'Académie des Sciences*, 1702, p. 209; related by Bernutz.
n in ours.	General cavity of peritonæum.	Left tuba, seat of tubal pregnancy, and torn; placenta also present in cavity of uterus.	Dancing.	Duverney, *Œuvres anatomiques*, t. ii. p. 355; related by Bernutz.
n in ours.	General cavity of peritonæum.	Right tuba, seat of tubal pregnancy, and torn.		AlbersdeBresme; related by Bernutz, *Clinique médicale sur les maladies des femmes*, p. 529.
n two after sion, months sup- com- ement ack.	General cavity of peritonæum.	Rupture of large cyst in extra-uterine fœtation; fœtus and blood lying free in cavity of peritonæum.	Fall.	Mme. Lachappelle; related by Bernutz, p. 531.
n sud- om se.	General cavity of peritonæum, near the sigmoid flexure of the colon.	Right ovary seat of conception; fœtus had escaped from sac and lay behind uterus and vagina in adventitious cyst outside the peritonæum; blood had escaped from thence into peritonæum by rent in same.		Sinclar, "Dublin Journal of Medical Science," 1853, p. 211.
about -six after ence-	General cavity of peritonæum.	Fœtus of from three to six weeks in right tuba; the sac that contained it ruptured.	? Excessive coitus.	Siredey; related by Bernutz, p. 538.
in few .	General cavity of peritonæum full of blood; one of the clots contained a fœtus of about nine weeks.	Rupture of tuba, the seat of tubal pregnancy at its uterine end.	Fall.	Related by Bernutz, p. 543.
in five days.	General cavity of peritonæum.	Fœtus of about ten weeks in right tuba, which had ruptured.		*Bulletin de la Société Anatomique*, 1853, p. 40; related by Bernutz.
on day.	General cavity of peritonæum.	Extra-uterine fœtation; rupture of sac containing fœtus, which was situated in the hypogastrium.		Duverney, *op. cit.*, p. 357; related by Bernutz.
four- ays dmis- to al.	In retro-uterine cul-de-sac of peritonæum.	Right tuba, seat of tubal pregnancy in advanced condition.		Braun, *Wiener medizinische Wochenschrift*, 1861, No. 35, et sqq.
nine fter era-	Inside the peritonæum, but only a few drops, which were in the immediate neighbourhood of the tubæ.	Vagina and uterus much dilated and still containing blood; tubæ enormously distended and filled with black altered blood that escaped readily through their ostia abdominalia on pressure.		Bernutz, *op. cit.*, p. 34.

No.	Age.	Children or Miscarriages.	Menstruation before and at time of Attack.	Previous Health.	Onset, Sudden or Gradual.	Most marked Symptoms.	Course of Disease.	Treatment Expectant Operative &c.
12	18		Retention of menses for more than a year.			Pain and malaise every month; hypogastric tumour detected; red fluctuating swelling between lips of vulva, caused by distended hymen.	Relief directly after operation, but peritonitis three days later.	Puncture and incis of hymen cape of al ed blood.
13	24		Retention of menses for eight years.			Immense hypogastric tumour detected, congenital occlusion of vagina.		Incision the occlu sion, and latation v finger; e cape of bl altered bl by the op ing.
14	26		Retention of menses for six years.			Periodical pain every month, gradual formation of tumour, lower half of vagina found occluded by a membrane.	Rapid onset of peritonitis after operation.	Incision the obstr ing mem brane; e cape of m black blo
15	18		Signs of puberty appeared eighteen months before, but retention of menses.			Pains in back and limbs, and sense of pain in pelvis at each menstrual epoch; enlargement of abdomen.	Gradual aggravation of symptoms; death preceded by peritonitis.	No opera tion.
16	40	2 children, 5 miscarriages.	Suppression of menses for two months before attack, which was immediately preceded by expulsion of clots per vaginam and discharge of blood.	Feeble.	Sudden.	Pain, pallor; three different tumours felt above pubes, but one mass behind uterus.	Continuous discharge of blood per vaginam; before death great aggravation of symptoms, indicating a fresh attack of peritonitis.	Leeches operation
17	38	1 child.	Previously regular; attack preceded directly by violent menorrhagia.	Good.	Sudden.	Violent pain in hypogast., small feeble pulse, pallor, constipation, difficult micturition; two tumours felt in hypogast., and one large mass behind uterus; œdema and numbness of left leg.	Constipation was followed by obstinate diarrhœa, but no blood in stools; tumour in great part absorbed; formation of large abscess in buttock communicating with rectum.	Leeches opium; operatio except o ing of ab scess.
18	39	4 children.	Previously regular; attack commenced ten days after menstruation, which had lasted longer than usual.	Good.	Sudden.	Sudden violent pain in abdomen, vomiting, coldness of extremities; no tumour detected, but abdomen hard and dull on percussion.	Rapid increase of pain and other symptoms.	No opera tion.
19	36	1 child.	Attack during a menstrual period when menorrhagia was present.		Sudden.	Sudden pain in abdomen, with faintness, followed by vomiting and coldness of extremities; no tumour detected.	At first sight improvement, then great aggravation of symptoms, and death.	No oper tion.

ination sease.	Seat of Extravasation on post mortem Examination.	Source of Hæmorrhage.	Exciting Cause.	Observed or Related by
n three after pera-	About a pint and a half inside the peritonæum.	Uterus about three times its natural size; tubæ enormously distended, and in parts ruptured, so that their contents, altered blood, had escaped into peritonæum.		Related by Bernutz, p. 35.
three after per-	Quantity of black stinking fluid inside the peritonæum.	Uterus and tubæ enormously distended; vagina obliterated; blood had evidently flowed from the ostia abdominalia of the tubæ into the peritonæum.		De Haen, *Ratio medendi*, pars vi. tom. iii. p. 32; related by Bernutz.
two fter era-	Small quantity of putrid blood in peritoneal sac, exactly like that found in tubæ.	Uterus considerably enlarged; tubæ enormously dilated, left ruptured behind.		Locatelli, *Gazetta medica di Milano*, Sept. 1848; related by Bernutz.
.	Twelve or fourteen ounces in peritonæum.	Tubæ enormously distended, fimbriated extremity of right ruptured; uterus distended, containing some ounces of blood, like that found in peritonæum; cartilaginous cicatrix occluding vagina.		Munk, "London Medical Gazette," vol. xxvii. p. 867 *et sqq.*
three s after ence-	Blood inside peritonæum, occupying the cul-de-sac of Douglas.	Ovarian tumours containing blood, the right formed by the dilated tuba adherent by its fimbriated extremity to the ovary; the left formed by the dilated tuba not directly connected with the ovary, but separated from it by adhesions which united its fimbriated extremity to the ovary and adjacent peritonæum.	Fatigue.	Bernutz, *Archives de médecine*, 1848.
from three s after ence-	Altered blood in retro-uterine cul-de-sac; both tubæ dilated, the left especially, so as to form at one point a small tumour containing altered blood, and communicating with the large adventitious cyst; dysenteric ulceration of intestine.	Probably left tuba.		Observed by Oulmont; related by Voisin, *De l'hæmatocèle rétro-utérine*, 1860.
with- hour om- ment.	Large quantity of blood and clots in peritonæum, especially in pelvis.	Left tuba distended with blood and ruptured.		Royer, *Académie de Médecine*, Oct. 5th, 1855.
in hours om- nent.	Peritonæum full of blood.	Right tuba distended with blood and torn transversely.		Pauli, *Gazette des hôpitaux*, 1847.

No.	Age.	Children or Miscarriages.	Menstruation before and at time of Attack.	Previous Health.	Onset, Sudden or Gradual.	Most marked Symptoms.	Course of Disease.	Treatment, Expectant, Operative, &c.
20		Children.			Sudden.	Violent colic, vomiting, cold sweats, fainting fits, convulsions, death; no tumour detected.		No operation.
21	28		Attack preceded by menorrhagia.		Sudden.	Pain, fainting-fits, cold skin, pallor, vomiting, distension of abdomen; no tumour detected.	Rapid death, as from hæmorrhage.	
22	18		Attack during the menstrual period.		Sudden.	Rapid and fatal collapse.		
23	37	6 children.	Menstruation previously regular.	Robust.		Pain in loins, fever; tumour felt in abdomen.		Bleeding, calomel, opium; operation.
24	25	Nochildren.	Previously painful and profuse; checked completely for some months before attack.			Pain, constipation; detection of tumour above pubes and behind uterus, lying somewhat to the right.	Escape of clotted blood spontaneously per vaginam.	No operation.
25	29		Previously excessive; at time of attack retarded and diminished.		Gradual	Pain; tumour detected in hypogast. and behind uterus.	Spontaneous opening and discharge of blood per rectum, followed by symptoms of putrid infection.	No operation.
26	32		Previously regular; but occurring too frequently for some time before the attack.	Weak.	Sudden.	Sudden colic and vomiting; next day extremities cold, cold sweats, hiccough; abdomen distended and tender, but no tumour detected.	Symptoms more and more formidable till death.	Leeches, great number; no operation.
27	28	1 child.	Regular till four months before the attack; since then menorrhagia; cessation of menstruation three days before the attack.	Robust.	Sudden.	Violent colic, nausea, small pulse; then vomiting, tension and great tenderness of abdomen; constipation, difficult micturition; no tumour detected.	Symptoms more and more formidable till death.	Leeches, great number; no operation.
28	32		Menorrhagia at time of attack, menses for some time previously postponed.		Gradual	Pain; later, fever, pallor, nausea, vomiting, great prostration, an abundant menorrhagia continuing at same time; large tumour detected above pubes, also behind uterus, and in right broad ligament.	Aggravation of symptoms.	No operation.
29	33			Good.		Collapse, temporary recovery followed by pain, retention of urine and constipation; painful tumour detected above pubes on right side, as also behind uterus of size of two fists, elastic.	Aggravation of symptoms at recurrence of menstrual period: finally death from sudden effort causing peritonitis.	Purgative, no operation.

nation sease.	Seat of Extravasation on post mortem Examination.	Source of Hæmorrhage.	Exciting Cause.	Observed or Related by
in hours om- ment.	Peritonæum full of blood, abundant clots in lower part.	Right tuba torn near its uterine end.		Godelle, *Nouvelle bibliothèque médicale*, Mars, 1823, tom. i.
in few	In peritonæum, especially in pelvis, which was full of clots.	Left tuba, distended into tumour size of pigeon's egg, full of clots and ruptured; uterine opening of tuba blocked up by small fibrous tumour.		Fauvel, *Bulletin de la Société Anatomique de Paris*, ann. xxx. 1855, p. 395.
almost liate.	About four pounds of blood in the peritonæum.	Bursting of small vein into left tuba, rupture of tuba, and escape of blood into the peritonæum.	Sudden chill from upsetting of a vessel of water.	Observed by Seyfert; related by Tuckwell.
eleven fter as first	Mass of blood in left iliac region, filling the pelvis and imbedding the uterus.	Left Fallopian tube bulged out to size of walnut, and ruptured.		Observed by Switzer; related by Tilt, "Diseases of Women," 2nd and 3rd Edit.
three s after nce-	Large mass of blood occupying the pelvis and right iliac fossa, lying in direct contact with the left ovary, probably intraperitoneal.	Left ovary red and friable.		Bouvyer, *Bulletin de la Société Anatomique*, 1855.
in two s.	Intraperitoneal; in retro-uterine cul-de-sac.	Rupture of an ovary, at posterior part of which was an open cavity containing clots.		Denonvilliers, *Bulletin de la Société de Chirurgie.*
- hours om- ment.	Intraperitoneal; peritonæum full of blood; large clots in pelvis.	Left ovary, size of hen's egg, converted into a soft pulpy mass like a spleen; deeply rent, so as to allow of escape of blood into the peritonæum.		Drecq, *Annales de la Médecine Physiologique*, tom. ix. p. 444.
three fter nce-	Intraperitoneal; peritonæum full of bloody fluid; pelvis full of clots.	A tumour formed at the expense of, and occupying the place of, the left ovary, filled with blood and clots, and deeply rent.		Puech, *Thèse*, 1858.
n two ter ion spi- ut eeks m- nent se.	Intraperitoneal; peritonæum filled with clots; extra-uterine fœtation quite independent of the extravasation.	Left ovary, which was hollowed out into a cyst containing clots, and communicating with the peritonæum by a rupture.		Nonat, *Des maladies de l'Uterus*, 1860, p. 863.
ight ter psc, after t ance lis-	Intraperitoneal; blood originally extravasated into the retro-uterine cul-de-sac, and escaped from thence into the general sac of peritonæum.	Right ovary, which had become filled with clotted blood, enlarged to size of hen's egg, and burst.		Observed by Seyfert; related by Tuckwell.

No.	Age.	Children or Miscarriages.	Menstruation before and at time of Attack.	Previous Health.	Onset, Sudden or Gradual.	Most marked Symptoms.	Course of Disease.	Treatment, Expectant, Operative, &c.
30			Previous cessation of menses for three months.	Good.		Tumour detected.	Spontaneous discharge per rectum; death from dysentery.	
31	32	1 child.	Attack during menstrual period, menses suddenly checked by blow.		Sudden.	Intense pain; sanguineous discharge, becoming especially profuse at succeeding menstrual periods, uterus anteverted by tumour.		
32	18		Sudden cessation of menses from putting hands for long time in cold water, followed by attack.		Sudden.	Pain, fever; tumour felt externally and internally surrounding the womb on all sides.	Spontaneous opening per rectum followed by improvement; reappearance of menses, and suppression of same by shock: rigor, vomiting, and death.	
33	26				Sudden.	Pain in lower part of abdomen.		
34	27	1 child.	Menorrhagia for two months before the attack, which came on in the hospital while under treatment for an ulcer of the cervix uteri.	Good.	Sudden.	Symptoms of general peritonitis; pallor.		Leeche operati
35	29	2 children.		Good.	Sudden.	Sudden attack of syncope; no tumour detected.		No ope tion.
36	28	1 child.	Profuse one month before the attack, which did not commence at the time of the catamenia.	Feeble.	Sudden.	Sudden pain in abdomen, followed by syncope.		No ope tion.
37	29		Menorrhagia lasting for a month before the attack commenced.	Feeble.	Sudden.	Sudden pain in abdomen, with syncope; followed by vomiting, coldness of extremities, and death.		No ope tion.
38	30	3 children.	In the fifth month of pregnancy.	Good.	Sudden.	Great pain and rapid collapse.		
39	24	1 child, 3 miscarriages.	Complete suppression for two months before attack; then sudden and profuse appearance of menstrual discharge, and attack on same day.	Good.	Sudden.	Pain and weight in abdomen, pallor; existence of tumour detected in form of a smaller mass above the pubes, and larger mass behind and to right of uterus.	Escape of small quantity of blood by puncture; death from general peritonitis.	Punct per va on tw sions.

nation sease.	Seat of Extravasation on post mortem Examination.	Source of Hæmorrhage.	Exciting Cause.	Observed or Related by
.	Intraperitoneal; recto-uterine cul-de-sac.	Rupture of left ovary.		Observed by Seyfert; related by Tuckwell.
from nitis.		Left ovary, which was hypertrophied, very vascular, and had its capsule rent.	Blow.	Verney, *Gazette des hôpitaux*, July, 1852.
.	Intraperitoneal, especially in pelvis.	Right ovary, which was the seat of three sanguineous collections, two of which had burst into the peritonæum.	Cold water applied to hands at menstrual period.	Guérard, *Société médicale des hôpitaux*, 1856.
y after ence-	Intraperitoneal, four pints of blood.	Left ovary, which was as large as a turkey's egg, and was the seat of a rent half an inch in length.		Brown, "Edinburgh Medical Journal," 1855.
two fter ence-	About two pints of black blood, partly fluid, partly in clots, in the cavity of the pelvis; intraperitoneal.	Right ovary, softened, containing a collection of extravasated blood, and torn across.		Luton, *Gazette médicale*, 1856, p. 76.
in hour.	Intraperitoneal; number of clots in pelvis.	Rupture of one of the veins of the pampiniform plexus, which were varicose.	Exertion of dancing.	Fleischmann, *Leichenöffnungen*, Erlangen, 1815.
within y-four after ence- of oms.	Peritoneal sac full of clotted blood.	Small sac containing blood-clots situated between folds of left broad ligament, into which a blood-vessel opened, and which had burst into the peritonæum.	Carrying a heavy weight	Leclerc, *Archives générales de médecine*, 1828, tom. xviii. p. 281.
in hours.	Intraperitoneal; enormous mass of coagula in pelvis; small dilatation of tuba containing an embryo of few weeks, but *not* the source of hæmorrhage.	Rupture of a large varicose vein in the right broad ligament.		Ollivier, *Archives de médecine*, 1834, tom. v. p. 404.
in hours.	Extra-peritoneal, the blood occupying the right half of the pelvis, and reaching up into the right iliac region as far as the kidney.	Rupture of a dilated vein of the right ovary.	Shaking of a carriage.	Chaussier, *Mémoires et Consultations de médecine légale*, Paris, 1824, p. 397.
nearly nonths first rance.	Adventitious sac behind and to right of uterus *outside* the peritonæum, which it had lifted up to form a roof to it; cavity of peritonæum full of bloody fluid; smaller sac containing blood between the layers of the right broad ligament, which communicated with the large sac.	Not discoverable.		Voisin, *De l'hæmatocèle rétro-utérine*, 1860.

No.	Age.	Children or Miscarriages.	Menstruation before and at time of Attack.	Previous Health.	Onset, Sudden or Gradual.	Most marked Symptoms.	Course of Disease.	Treatment, Expectation, Operation, &c.
40	37	4 children, 1 miscarriage.	Tendency to menorrhagia and leucorrhœa; menses not present at time of attack.	Weak.	Sudden.	Violent pain, fever, rigors, nausea, difficult defœcation and micturition, pallor; tumour felt with difficulty above pubes, but behind uterus.	One attack of menorrhagia three days after commencement; symptoms improve, but death from dysentery.	Leeches, operation.
41	38	1 child.	Cessation of catamenia three months before attack.	Robust.	Gradual.	Pain, constipation, retention of urine, vomiting; large tumour detected behind uterus; re-appearance of menses shortly before death?	Rapid increase of distress till death; discharge of altered fetid blood per rectum five days before death.	No operation.
42	27	6 children.	Previously regular; attack eight days after cessation of period.	Good.	Sudden.	Pain, gradually increasing, followed by vomiting; micturition and defœcation very difficult; large tumour felt in hypogast., blocking up and distending recto-uterine cul-de-sac so as to push the uterus against the pubes.	Slight discharge of blood per vaginam, but evidently coming from uterus.	Incision through posterior of the c uteri in tumour cape of altered blood.
43	27	1 child.	Previously regular, discharge lasting eight days: at time of attack much diminished in quantity.	Good.	Sudden.	Pain in hypogast., constipation, difficulty of micturition; large tumour felt above pubes and in vagina behind uterus and to left.	Escape of blood per rectum.	No operation.
44	27	1 child.	Previously painful and profuse; suppressed at time of attack.	Good.	Sudden.	Pain in hypogast., rigors, sweating, nausea, constipation; large tumour felt above pubes and behind the uterus, which it pushed forward.	Escape of fetid blood on puncture, followed by symptoms of pyæmia.	Punctu per va nam.

ination isease.	Seat of Extravasation on post mortem Examination.	Source of Hæmorrhage.	Exciting Cause.	Observed or Related by
n in ra- nore three hs.	Intraperitoneal; retro-uterine cul-de-sac contained altered blood; small purulent deposits in the neighbourhood of the ovaries, the condition of which is not mentioned.	Not discoverable.	Severe emotion.	Voisin, *De l'hæmatocèle rétro-utérine*, 1860.
n about hs after ience- .	Large cavity filled with stinking clots is formed by the retro-uterine cul-de-sac of the peritonæum, limited above by coils of intestines united by adhesions, communicating with the rectum in two parts.	Not discoverable.		*Moniteur des hôpitaux*, 1856, p. 589; Engelhard, *Thèse*, Strasbourg, 1856, No. 364, p. 35.
n from orrhage esult of on.	Intraperitoneal, especially in recto-uterine cul-de-sac, where was large adventitious cyst containing altered blood and blood-clots.	Not discoverable.	Probably carrying heavy weight.	Observed by Malgaigne, related by Vigués, *Thèse*, Paris, 1850, p. 21.
very -eight after ppear- of tu- .			Probably a fall.	Voisin, *op. cit.*
very more three as after ble ence- of .			Coition during menstrual period.	Ibid.

No.	Age.	Number of Children or Miscarriages.	Menstruation before and at time of Attack.	Previous Condition of Health.	Onset, Sudden or Gradual.	Most marked Symptoms.
45	28	1 child, 2 miscarriages.	Previously painful and profuse; attack commenced probably just after miscarriage.	Feeble.	Gradual.	Pain in hypogast.; great debilit pallor; large tumour felt above and behind uterus.
46	23	1 child.	Previously irregular; increase in quantity immediately before the attack.	Good.	Sudden.	Pain, rigors, vomiting, constipa feebleness, pallor; large tumo above.
47	38	1 child.	Previously profuse, and up to day of attack very abundant discharge.	Good.	Sudden.	Pain in hypogast., rigors, dif micturition, pallor, constipatio ver; tumour as above.
48	31	1 child.	Painful and profuse before and at time of attack.	Good.	Sudden.	Great pain and agitation, pallo feebleness, fever, constipation; tumour as above.
49	30	1 child.	Previously irregular; tendency to menorrhagia.	Nervous.		Pain; detection of large tumour pubes, behind and to left of uter
50	24	3 children.	Subject to menorrhagia.	Good.		Pain, small and frequent pulse; tumour detected, as above, b uterus.
51	21	1 child, 2 miscarriages.	Subject to menorrhagia.	Good.		Pain, frequent pulse, pallor, pr tion; tumour detected pushing forwards and to right.
52	30	3 children.	Last child three months before commencement of attack, which came on during the menstrual period.	Feeble.	Sudden.	Pain in hypogast. and sacrum; more and more marked; large t detected behind uterus and pubes.
53	24				Sudden.	Pain in right iliac fossa, tumo behind and to right of uterus.
54	25	4 children, 1 miscarriage.	Previous cessation of menses; attack immediately preceded by menorrhagia, which continued.	Robust.	Sudden.	Pain, later rigor, constipation tenesmus; pallor; tumour de in hypogast. and behind uterus.
55	43	15 children.	Condition of menses not mentioned, but subject to repeated attacks of hæmoptysis.	Delicate.		Pain, fever, pallor, constipation, gury; tumour felt in left iliac and behind uterus.
56	28	1 child.	Previously irregular; sudden attack of pain preceded directly by suppression of menses.	Good.	Sudden.	Pain, constipation, tenesmus; t detected in left iliac region a hind uterus.
57	21	1 miscarriage.	Irregular.			Pain and sense of weight in peri tumour detected as above.
58			Dysmenorrhœa.			Pain, but slight; small tumo tected in hypogast. and behind
59	30	1 child.	Irregular, with menorrhagia.	Delicate.		Slight pain; tumour in left i gion, to left of and behind uter
60	34	Several children.	Regular.	Good.	Gradual.	Intense pain, nausea and vo pallor; tumour detected as ab

Course of Disease.	Treatment, Expectant, Operative, &c.	Termination of Disease.	Exciting Cause.	Observed or related by
al absorption of extra- d blood; exaggeration mptoms at following rual periods.	No operation.	Recovery between six and seven months after first appearance of disease.		Voisin, *op. cit.*
al absorption.	No operation.	Recovery about two months after commencement.	Excessive coition.	Ibid.
al absorption; exag- on of symptoms at each ing menstrual period covery.	No operation.	Recovery in from eight to nine months.	? Exertion of scrubbing during the menstrual period.	Ibid.
al escape of large quan- f blood.	Puncture per vaginam.	Recovery in about three months.		Ibid.
neous discharge of blood per rectum.	No operation.	Recovery.		Laborderie, *Gazette des hôpitaux*, 1854.
of blood at first spon- sly per vaginam, and nore abundantly after n.	Incision into tumour per vaginam.	Recovery.		Nonat, *Gazette des hôpitaux*, Juin, 1857.
l absorption.	No operation.	Recovery.	? Coition during an attack of menorrhagia.	Nélaton, *Gazette des hôpitaux*, 1853.
al absorption.	No operation.	Recovery.		Voisin, *op. cit.*
al absorption.	Leeches to anus; no operation.		Attack directly after coition.	Ibid.
eration of symptoms xt menstrual period, enorrhagia continuing hout; gradual disap- ice of tumour.	No operation.	Recovery rather more than seven months after commencement.		Ibid.
neous bursting of tu- on two occasions, and rge of clots and altered per vaginam, and pro- per rectum.	Leeches; no operation.			Fenerly, *Thèse*, 1855.
neous opening and es- f treacly fluid per vagi- vith gradual subsidence our.	No operation.	Recovery eight months after commencement.		Ibid.
	No operation.	Recovery.		Ibid.
	Incision of tumour per vaginam.			*Société de chirurgie*, 1851.
tence of menorrhagia; ous discharge of blood ctum.	No operation.	Recovery.		*Gazette des hôpitaux*, 1851; Fenerly, *Thèse*, 1855.
	Puncture and incisions per vaginam.	Diminution of tumour, but doubtful cure.		Fenerly, *Thèse*, 1855.

No.	Age.	Number of Children or Miscarriages.	Menstruation before and at time of Attack.	Previous Condition of Health.	Onset, Sudden or Gradual.	Most marked Symptoms.
61	35	1 child, 4 miscarriages.				Pain in hypogast. and sacrum, frequent pulse; constipation an quent micturition; tumour in gast. and behind uterus.
62	31	2 children.	Dysmenorrhœa and leucorrhœa; menorrhagia at time of attack.	Delicate.	Sudden.	Pain, as in childbirth, nausea, c pation, pallor, frequent micturi tumour felt above pubes and b uterus.
63		1 child, 2 miscarriages.	Previously irregular and scanty; at time of attack menorrhagia.			Pain, fever, pallor; tumour de in left half of hypogast. and b uterus.
64		1 child.	Irregular, and subject to menorrhagia; attack at time of a profuse menorrhagia.	Strong.	Sudden.	Severe pain, fainting, vomiting lor; tumour detected, reaching umbilicus, and felt behind uteru
65	28	3 children.	Menorrhagia for some months before attack, with leucorrhœa and chlorosis; cessation of menorrhagia *immediately* before the attack.	Good.	Sudden.	Pain as in labour, fever, nausea charge of blood per vaginam tw after commencement; painful cation and micturition; very tumour in hypogast. extendin left iliac region, felt also t uterus.
66	29	1 child.	Previously irregular; attack immediately preceded by menorrhagia.	Strong.	Sudden.	Pain, rigor, constipation, stran exaggeration of symptoms at menstrual epoch, pallor; tumo tected *in front of* cervix and of uterus, also above pubes.
67	25	3 children, 1 miscarriage.	Subject to menorrhagia.	Strong.	Sudden.	Pain increased at each me period after first appearance mour; constipation, difficult rition, large tumour behind left of uterus, frequent recurre menorrhagia.
68	35	1 child.	Subject to menorrhagia; attack during the menstrual period.			Pain, nausea, vomiting, pallo mour detected above pubes a hind uterus.
69	30	1 child.	Previously irregular; menorrhagia for some months before attack, which came on the fourth day of the menstrual period, with sudden suppression of the discharge; probably second attack.	Feeble.	Sudden.	Pain, rigors, vomiting; later, stipation and strangury; incre pain at following menstrual p two tumours detected to righ left above pubes, also to right behind the uterus.
70	22	No children.	At age of 19 discharge of much reddish brown fluid per vaginam, followed by continuous purulent discharge.			Pain in paroxysms, discharge dish brown fluid, and then of p vaginam; tumour detected i region and behind uterus.
71	25	3 children.	Regular: constant sanguineous discharge for about two months before admission.	Good.	Probably gradual.	Bearing-down pain; occasional ing fits; micturition frequen painful; large tumour detect left side, reaching above um and over to right side: felt a hind uterus and vagina.
72	21		Previously regular; sudden suppression at time of attack.	Good.	Sudden.	Pain, sensation of weight abo anus, constipation; tumour de above pubes and behind uterus.
73	35	1 child, 4 miscarriages.	Previously regular; attack commenced shortly after a confinement.	Good.	Gradual.	Pain, fever, constipation, men gia; tumour detected, reachin low in the vagina, pushing the for wards and the rectum to the

Course of Disease.	Treatment, Expectant, Operative, &c.	Termination of Disease.	Exciting Cause.	Observed or Related by
	Puncture per vaginam.	Recovery.	Immediately following childbirth.	Prost, *Thèse*, 1854.
	No operation.	Recovery.	Severe fatigue.	Ibid.
			Commenced directly after coition.	Cestan, *Thèse*, 1855.
se of trouble at the the menstrual periods.	No operation.	Recovery after five months.		Gallard, *Union médicale*, 1855.
continues; dysentery enes; spontaneous dis- of large quantity of blood per rectum.	Few leeches; opium clyster to relieve the dysentery.	Recovery two months after commencement.		Observed by Oulmont; related by Voisin, *op. cit.*
oms continue much the or four or five weeks; t attack of menorrha- en follows. Gradual tion of tumour.	Leeches; no operation.	Recovery three months after commencement.	Violent coition at the end of an attack of menorrhagia.	Voisin, *op. cit.*
oms persist for a long naltered; then follows neous discharge of al- lood per vaginam, and per rectum.	No operation.	Recovery, though imperfect, about eight months after commencement.	Excesses of all kinds, especially of coition.	Ibid.
eral occasions a consi- discharge of blood per n, but apparently *not* from tumour.	No operation.	Recovery after several months.		Ibid.
ence of discharge of serous fluid per vagi- hich came from uterus t from tumour.	No operation.	Recovery two months after commencement.	Strain in carrying a weight.	Ibid.
	Puncture and injection of iodine.	Recovery.		West, "Diseases of Women," Pt. II.
neous discharge of al- blood on different oc- , partly per rectum, per vaginam; occur- of peritonitis, which off.	Puncture per vaginam.	Recovery in from three to four months.		Ibid.
l absorption.	Bleeding; no operation.	Recovery at end of six weeks.	Application of cold to the vulva during menstruation.	Nonat, *Traité pratique des maladies de l'utérus*, 1860, p. 863.
l recovery.	Puncture and incision of cyst wall per vaginam; injections into cyst.	Recovery thirteen days after admission into hospital.		Ibid.

No.	Age.	Number of Children or Miscarriages.	Menstruation before and at time of Attack.	Previous Condition of Health.	Onset, Sudden or Gradual.	Most marked Symptoms.
74	32		Attack three days after commencement of menstruation.	Good.	Sudden.	Pain, nausea, vomiting; sensa weight about anus; abundar norrhagia, pallor; tumour d reaching to umbilicus, and si very low down behind uteru vagina.
75	26	3 children.	Irregular for two months before the attack; menorrhagia at time of attack.	Good.	Gradual.	Pain, debility, constipation; cc ance of menorrhagia; enormo mour above umbilicus and uterus, pushing forward the va
76	25	1 child.	Menorrhagia for some months before, and probably at very time of attack.	Good.		Pain and weight in abdomen; tumour felt of size of apple uterus.
77	26	2 children.	Menorrhagia profuse at time of attack.		Gradual.	Slight pain with sensation of la large tumour behind uterus.
78	35	1 child.	Previously regular; attack just at end of menstrual period.	Good.	Gradual.	Pain, first slight, becoming m tense; continual menorrhagia tumour detected behind uterus
79	30	5 children.	Previous cessation of menses for two months.	Good.	Sudden.	Pain and weight in anus, fai small tumour detected per va behind uterus.
80	28	1 child.	Previously regular.	Good.		Violent pain; detection of tum usual seat behind uterus, and a to right of uterus.
81	37	2 children.	Previously scanty; attack at time of menstrual period.	Good.	Sudden.	Violent pain, followed by pall wasting; tumour felt consi above symphysis pubis and the uterus, filling up the ret rine cul-de-sac.
82	24	1 child.	Previously regular; attack in seventh month of pregnancy.	Robust.	Sudden.	Pain; difficult micturition; detected *in front of* uterus.
83	21		Previously regular; attack during first pregnancy.	Good.		Pain; tumour here too *in f* uterus.
84	36	3 children.	After cessation of menses for two months, menorrhagia supervened and lasted for several weeks, during which time the disease commenced.	Good.	Gradual.	Pain; retention of urine; pai mour detected behind uterus.
85	24		Menorrhagia at time of attack.	Good.	Sudden.	Violent pain, fever; large pai mour felt above pubes and uterus.
86	28	1 child.	Previously always profuse; attack just at end of menstrual period.	Good.	Sudden.	Pain, slight fever, retention of elastic tumour behind uterus.

Course of Disease.	Treatment, Expectant, Operative, &c.	Termination of Disease.	Exciting Cause.	Observed or Related by
ggravation of symp- then rapid improve- ter operation.	Puncture and incision per vaginam, with escape of much blood; injection of iodine.	Recovery nearly four months after commencement.		Nonat, *Traité pratique des maladies de l'utérus*, 1860, p. 863.
n days after com- ment serious aggrava- l increase of tumour; severe relapses, but ecovery.	Puncture and incision per vaginam on two occasions; injection of water and iodine.	Recovery three months after commencement.		Ibid.
eous opening per va- and escape of fluid, f sepia, and clots; gra- ninution of tumour.	No operation.	Recovery about five months after commencement.	Excesses of all kinds, especially coitus.	Puech, *De l'hæmatocèle periutérine*, 1861, p. 39.
irst operation great ation of symptoms; econd, gradual im- ent; blood that es- ery fetid.	Puncture per vaginam twice; canule left in; injection of solution containing chlorine, and, later, iodine.	Recovery about two months after commencement.		Gallard, *Gazette hebdom.*, Oct. 9, 1857.
l diminution of tu-	Leeches; no operation.	Recovery two months after probable commencement.	Coitus during menstrual period.	Gallard, *Archives générales de médecine*, Oct. 1860.
hagia, with occasional us, continues for long er commencement of	No operation.	Recovery imperfect nearly five months after commencement.		Ibid.
l, but decided, im- ent after operation.	Puncture per vaginam.	Recovery in about three months after commencement.		Braun, *Wiener Medizinische Wochenschrift*, Juli, 1861.
mprovement after free ge of encysted blood.	Puncture per vaginam.	Recovery more than four months after commencement.	Lifting a weight.	Ibid.
ever after operation; lual improvement till recovery.	Puncture of the anterior wall of vagina; evacuation of two pounds of decomposed brownish blood; enlargement of opening with bistoury; injection of warm water into cyst.	Recovery two months after admission into hospital, more than a year after probable commencement of disease.	Lifting a weight.	Ibid.
f child after punc- tumour and escape of gradual recovery.	Puncture as above; evacuation of more than two pounds of altered blood; injection of warm water into cyst.	Recovery in from three to four months after commencement.		Ibid.
increase of tumour, by rapid diminution provement, after eva- of its contents.	Puncture and enlargement of opening with bistoury; injection of lukewarm water into cyst.	Recovery three months after commencement.		Ibid.
increase of tumour fering till the oper- hen relief and rapid ment.	Leeches; puncture above pubes in two different places.	Recovery in from three to four months after commencement.		Tuckwell, Paris, 1860.
absorption of blood.	No operation.	Recovery in a few weeks.		Id. Prague, 1862.

No.	Age.	Number of Children or Miscarriages.	Menstruation before and at time of Attack.	Previous Condition of Health.	Onset, Sudden or Gradual.	Most marked Symptoms.
87			Attack directly following irregular menstruation.			Painful large tumour behind ut
88	36		Amenorrhœa for two months previously; attack on fourth day after re-appearance of menses.	Good.	Sudden.	Nausea, and violent abdominal obstinate constipation; difficu turition; tumour felt behind ut
89	25		Menstruation habitually painful; sudden suppression of menses at time of attack.			Large globular swelling detec abdomen.
90	25	No child.	Menstruation painful; attack during epoch, flux having been checked by exposure to wet.	Good.		Violent pain, vomiting; large t felt externally and between and uterus, fluctuating.
91	23	2 children, 1 miscarriage.	Regular before marriage; after the birth of her children subject to menorrhagia; attack not at time of catamenia.	Good.	Sudden.	Violent pain; large tumour f tending into right iliac fossa, a ternally behind uterus and v vomiting; retention of urine rhœa, but not bloody.
92	35	4 children, 1 miscarriage.	Attack commenced eight days after miscarriage.	Good.		Great pain, nausea, very diffic fœcation; tumour detected in uterine pouch.
93	36	14 children.	Menorrhagia, suddenly ceasing and followed directly by attack.	Good.	Gradual.	Pain, malaise, obstinate consti pallor and wasting; large t felt reaching to umbilicus and uterus.
94	31	No children.	Previously subject to pain in the pelvis and symptoms of partial peritonitis; attack at end of a menstrual period.	Good till puberty.	Sudden.	Pain, fever, difficult mictu later, all the symptoms of h rhage; large tumour felt abo pubes and behind the uterus, it had pushed forward.
95	20	No children.	Attack preceded directly by a profuse and painful menstruation.	Bad.	Gradual.	Pain, persistent vomiting; la mour felt occupying the usua tion, and, as usual, very when touched.
96	24	2 children.	Eight months previously delivered of second child; menses previously regular, but not present at time of attack.	Good.	Sudden.	Pain, rigor, vomiting; large h mour felt above pubes to the and behind and to right of uter
97	28	1 miscarriage.	Miscarriage, followed by menorrhagia for six weeks, during which period the effusion took place.			Large tumour felt above pub behind uterus; fluctuation d on vaginal examination.
98	36		Menorrhagia appearing at the menstrual epoch, during which attack commenced.	Good.		Pain, fever, difficult defœcatio mour in hypogast. reaching ne umbilicus, and felt behind uter

Course of Disease.	Treatment, Expectant, Operative, &c.	Termination of Disease.	Exciting Cause.	Observed or related by
	Puncture per vaginam, and escape of nearly two pints of blood; cyst injected with disinfectants.	Recovery.		Robert, *Bulletin de la Société de Chirurgie*, May, 1851, p. 134.
al absorption of blood; se of suffering at men- period.	Leeches.	Recovery.		Nélaton, *Gazette des hôpitaux*, Dec. 1851.
aneous discharge per n.	Leeches.	Recovery three months after commencement.		Observed by Bennet; related by Tilt, *op. cit.*
taneous relief after ion; oozing of syrupy lood for some time.	Puncture per vaginam, evacuation of about two pints of black blood.	Recovery.		Tilt, *op. cit.*
al absorption of tu-	Leeches, opium; no operation.	Recovery in less than two months.	Shaking of a carriage; varices of labia and legs present.	Bernutz, *Sur les maladies des femmes*, 1860, p. 368.
al increase of tumour severity of symptoms; recovery after evacu- of cyst.	Puncture per vaginam.	Recovery about eleven weeks after commencement.		Viguès, *Thèse*, Paris, 1850, p. 49.
vement after operation; r three relapses, with se of pain, vomiting, arrhœa; at last tedious ry.	Puncture with large trocar and enlargement of wound with bistoury per vaginam.	Recovery about three months after commencement.		Ibid., p. 7.
al absorption of tu-	Leeches, &c.; no operation.	Recovery in less than two months.	? A shock.	Bernutz, *op. cit.*, p. 488.
al absorption of tu-	Wine, opium; no operation.	Recovery about two months after commencement.		Ibid.
liate relief after the ion; gradual recovery.	Puncture per vaginam; injection of the cavity with tepid water.	Recovery between two and three months after commencement.		Observed by Récamier; related by Bourdon, *Revue médicale*, 1841, p. 41.
	Puncture per vaginam, and injection with tepid water.	Recovery.		Ibid.
al absorption of tu-	Leeches; no operation.	Recovery rather more than a month after commencement.	? Emotion.	Nonat, *op. cit.*

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